

AMENDMENTS TO THE CLAIMS

1. (once amended) A composition of hydrocarbon fuel, in the low vapor pressure range to very low vapor pressure range, and carbon dioxide ~~(CO₂)~~ (CO₂) wherein the concentration of ~~(CO₂)~~ (CO₂) within the fuel is sufficient in volume to achieve a substantial reduction in exhaust soot particulate when the fuel is consumed by engine combustion.
2. (Cancelled) ~~A composition of hydrocarbon fuel, in the low vapor pressure range to very low vapor pressure range, wherein commercial grade of recycled carbon dioxide CO₂ is used and wherein the concentration of CO₂ within the fuel is sufficient in volume to achieve a substantial reduction in exhaust soot particulate during engine combustion.~~
3. (once amended) The composition of claim 1 ~~and 2~~ wherein said ~~CO₂~~ CO₂ is mixed under normal temperature and pressure within said fuel and the ~~CO₂~~ CO₂ does not react chemically with the fuel.
4. (once amended) The composition of claim 1 ~~and 2~~ wherein the combination of said fuel and said ~~CO₂~~ CO₂ is employed to improve fuel economy.
5. (once amended) The composition of claim 4 wherein the combination of said fuel and said ~~CO₂~~ CO₂ is employed to provide a net reduction in ~~CO₂~~ CO₂ production in engine exhaust.
6. (once amended) The composition of claim 1 ~~and 2~~ wherein the combination of said fuel and said ~~CO₂~~ CO₂ is employed to provide a net fuel cost savings.
7. (once amended) The composition of claim 1 ~~and 2~~ wherein the combination of said fuel and said ~~CO₂~~ CO₂ is employed to reduce fuel viscosity without entering into a chemical reaction.
8. (once amended) A composition of: liquid hydrocarbon fuel, in the low vapor pressure to very low vapor pressure range, and carbon dioxide ~~CO₂~~ CO₂ wherein the concentration of ~~CO₂~~ CO₂ within the fuel is less than 1 atmosphere of pressure and sufficient in volume to provide a substantial supply of inert gas for use in fuel tank ullage inerting purposes and the ~~CO₂~~ CO₂ does not react chemically with the fuel.
9. (once amended) The composition of claim 8 wherein: hydrocarbon fuel is in the low vapor pressure to very low vapor pressure range, and uses a commercial grade of recycled carbon dioxide ~~CO₂~~ CO₂ wherein the concentration of ~~CO₂~~ CO₂ within the fuel is sufficient in volume to provide a substantial supply of inert gas for use in fuel tank ullage inerting purposes.

10. (once amended) The composition of claim 8 wherein the combination of enhanced fuel by the added ~~CO₂~~ CO₂ provides an improved fuel fire safety factor when said enhanced fuel is transferred and stored.
11. (once amended) The composition of claim 8 within fuel tanks wherein the combination of said fuel and said ~~CO₂~~ CO₂ acts as a self-inerting fuel.
12. (once amended) The composition of claim 8 wherein the combination of said fuel with said ~~CO₂~~ CO₂ provides that said fuel acts as a 'weightless container' for transferring and storing substantial volumes of ~~CO₂~~ CO₂ without additional containment vessels.
13. (once amended) The composition of claim 8 wherein the combination of said fuel containing said ~~CO₂~~ CO₂ wherein that concentration of ~~CO₂~~ CO₂ in the fuel may be extracted from the fuel by mechanical means.
14. (once amended) The composition of claim 8 wherein the combination of said fuel and said ~~CO₂~~ CO₂ is transferable and storable in, existing closed fuel distribution systems and fuel delivery equipment such as those used at airports and other re-fueling terminals.
15. (once amended) The composition of claim 8 wherein the combination of said fuel and said ~~CO₂~~ CO₂ provides a new means for safely extending Jet-A fuel supplies by mixing in percentages of JP-4 or naphtha into ~~CO₂~~ CO₂ enriched Jet-A.
16. (once amended) The composition of claim 8 wherein the combination of said fuel receiving said ~~CO₂~~ CO₂ provides substantial fuel de-oxygenation during the ~~CO₂~~ CO₂ mixing process.